

531, 207

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



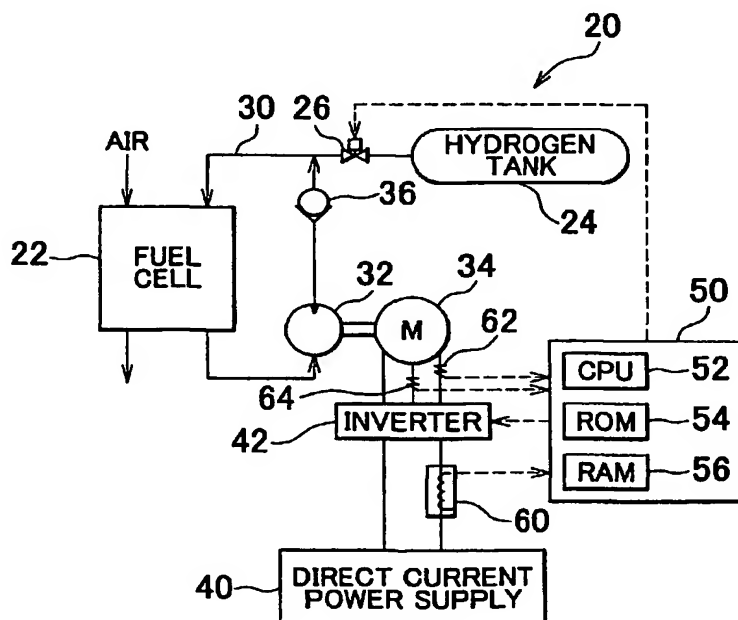
(43) International Publication Date  
13 May 2004 (13.05.2004)

PCT

(10) International Publication Number  
**WO 2004/040684 A2**

- (51) International Patent Classification<sup>7</sup>: **H01M 8/04** [JP/JP]; 2-1, Toyoda-cho, Kariya-shi, Aichi-ken 448-8671 (JP).
- (21) International Application Number: **PCT/IB2003/004799**
- (22) International Filing Date: 30 October 2003 (30.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
2002-319647 1 November 2002 (01.11.2002) JP
- (71) Applicants (for all designated States except US): **TOYOTA JIDOSHA KABUSHIKI KAISHA [JP/JP];** 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571 (JP). **KABUSHIKI KAISHA TOYOTA JIDOSHOKKI**
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): **ISHIKAWA, Tet-suhiro [JP/JP];** c/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571 (JP). **SATO, Hitoshi [JP/JP];** 1-55-8, Soharatouei-cho, Kagami-hara-city, Gifu-pref. 504-0815 (JP). **HYOGO, Takashi [JP/JP];** c/o Kabushiki Kaisha Toyota Jidoshokki, 2-1, Toyoda-cho, Kariya-shi, Aichi-ken 448-8671 (JP).
- (81) Designated States (national): CA, CN, DE, KR, US.
- Published:  
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HYDROGEN OPERATED POWER SYSTEM



(57) Abstract: One form of a hydrogen operated power system according to this invention is a fuel cell system (20) provided with a supply system which supplies a gaseous fuel from a fuel supply tank (24) to a fuel cell (22), characterized in that a pump (32) is provided in the supply system, which is driven by a sensorless motor (34) having no sensor that detects at least a rotational position of the motor (34).

WO 2004/040684 A2